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EXAMINER

HARVEY, DAVID E

ART UNIT

PAPER NUMBER

2481

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/576,832

Applicant(s)

HERPEL ET AL.

Examiner

DAVID E. HARVEY

Art Unit

2481

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 October 2010.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 11, 14 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 11, 14, and 16-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-040)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 8/13/2010
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

1. The following is noted:

- A) In the Office action mailed 8/13/2010, the examiner objected to dependent claims 21-23 as containing allowable subject matter;
- B) In the response filed 10/18/2010, applicant amended independent claims 11, 16, and 20 to include the limitations of the objected claims;
- C) The examiner notes that the data structure that has now been added to the independent claim, i.e., that of the previously objected claims 21-23, sets forth the data structure of a "Blu-ray" disc (BD) [SEE: Figure 1 of the instant specification]; i.e., effectively limiting the claims to such conventional BD disc format.
- D) Upon further consideration, the examiner now takes the following position:
 - 1) That it would have been obvious to one of ordinary skill in the art to have applied the DVD player software/firmware updating feature described by the applied "prior art" of Kuroda to conventional BD player technology. That is, Kuroda evidences that it was known/desirable to have included such player software/firmware updates on distributed DVDs and the application of this software/firmware updating feature the more recent/advanced BD disc technology would have been obvious to one of ordinary skill in the art; i.e., to desirably update the software/firmware of BD players in the same manner as DVD players. More specifically, that it would have been obvious to have included the software/firmware updates within the conventional data structure of a BD disc.

The examiner apologized for any inconveniences caused to applicant by this change in the examiner's position.

- 2. As set forth in the context of claim 11, and the context of the instant specification, the examiner maintains that the "medium" recited in line 1 of claim 11 is necessarily limited to non-transitory mediums and, as such, that claim 11 is directed to statutory subject matter in under Section 101.**

3. The examiner continues to maintain that it was notoriously well known in the electronic device programming/configuration art to have “indexed” a database of device specific programming/configuration data according “make” and “model” of the electronic device to be programmed/configured. The following “prior art” is cited in support of the examiner’s position:

A) US Patent #7,398,305 to Bodin:

- 1) In lines 53-63 of column 16, Bodin teaches:

“Alternatively, receiving (504), at the vendor (102), a configuration bundle (122) for the client device (120) from a manufacturer (132) includes receiving configuration bundles as a complete database of configuration bundles indexed, for example, by make, model, or client device serial number. In many cases, the database is stored on a compact disc, or other form of non-volatile computer memory. Receiving (504), at the vendor (102), a configuration bundle (122) for the client device (120) from a manufacturer (132) includes receiving updates to configuration bundles (122) previously received at the vendor (102).” (Emphasis added)

B) US Patent #5,465,240 to Mankovitz:

- 1) In lines 32-34 of column 24, Mankovitz teaches:

“The adapter 714 has stored in a read-only memory (ROM) 88, the IR codes protocols for most commercially available CD players indexed by manufacturer and model number. During a setup mode, which is initiated by pressing the setup key 96, the user identifies his CD player 712 by manufacturer and model number.” (Emphasis added)

C) US Patent #6,753,881 to Callway et al:

- 1) In lines 42-55 of column 5, Callway et al teaches:

“In addition, the programmable memory 326 may contain display configuration data that is associated with the monitor or display of the component video input television such that the EEPROM may have stored thereon resolution settings and scan rates for specific SDTV's or HDTV's indexed by manufacturer, model number, serial number or other suitable criteria. For example, different PROMs may be dedicated to differing manufacturers or differing HDTV's, a PROM may be programmed with ranges of SDTV's or HDTV's and a user may select the requisite SDTV or HDTV via a GUI or I2C expander, or a GUI can download to the EEPROM the necessary resolution information from a database accessible via the Internet.” (Emphasis added)

D) US Patent #7,595,902 to Yamaguchi et al.:

- 1) In lines 25-43 of column 18, Yamaguchi et al. teaches:

"The firmware-providing site 140 is a website which stores the latest firmware update data for the printers of all sorts of makes and models so as to provide the user with such data."

FIG. 20 is a diagram showing a sequence of firmware updating of the printer 130 under the firmware updating system 100a. The STB 120a firstly obtains instructions to update a firmware of the printer 130 (S20) from the user, requests the printer 130 to send firmware specification information using the API shown in FIG. 17 or the like (S21) so as to obtain it (S22).

The STB 120a then gains access to the firmware-providing site 140 via the communication interface 129 and the Internet, requests the firmware specified by the firmware specification information (maker ID, model ID and version ID) obtained from the printer 130 (S23) so as to output the firmware as a print-only content to the printer 130 (S25) while downloading the firmware from the firmware-providing site 140 (S24), and lets the printer 130 execute printing (it is actually an update of the firmware) (S26)."(Emphasis added)

E) US Patent #6,771,491 to Tojo et al.:

- 1) In lines 11-16 of column 5, Tojo et al teaches:

"With the URL information retrieved, the Internet access device 15 provides access to the designated Internet server 16 listed in the URL information. Then, in accordance with the data such as the manufacturer's name or serial number, an appropriate up-to-date firmware file is selected and downloaded." (Emphasis added)

F) US Patent Document #2004/0093597 to Rao et al.:

- 1) In paragraph 45, Rao et al teaches:

"In an embodiment of the present invention, the secure loader manager 277 may employ one of the loader modules 267 to download an update package from an external system such as, for example, a device server, or a delivery server. The secure loader manager 277 may employ identifying characteristics of the mobile handset 259 such as, for example, the manufacturer, the model, the source firmware/software version, the target firmware/software version, etc. The secure loader manager 277 may store information about the downloaded update package in a

section of storage 291 called an update package reference, employing the services provided by the file system 275 and/or the storage manager 281. This section of storage 291 may correspond, for example, to the update package reference 119 of FIG. 1. In such an embodiment, a change indicator, indicating the availability of an update package, may be set in the update package reference. The change indicator may then be employed by the update agent 265 to determine when to apply the firmware update during reboot or power up." (Emphasis added)

F) US Patent #7,536,685 to Lee:

1) Lee teaches:

"FIG. 1 is a flowchart of a conventional method of updating firmware. At operation 101, a customer visits a web site that provides firmware download services. At operation 102, the customer visiting the web site finds out information related to a product model for which the customer wishes to download firmware. After finding out the related information, at operation 102, the customer requests download of a firmware file for upgrading the corresponding desired product model. At operation 104, in response to the customer's request, the firmware file to be downloaded is opened and is extracted from a compressed format (i.e., decompressed), and then, at operation 105, the firmware file is downloaded into the customer's personal computer system. However, if any problem arises during the download of the firmware file, the download process is interrupted. (Emphasis added) [Lines 20-35 of column 1]

"The method of updating firmware according to an embodiment of the present invention will now be described in more detail with reference to FIGS. 2 and 3. Typically, the user device 201 accesses the service provider device 202 via the Internet 200 to upgrade firmware for a product, such as an optical disc drive product. The service provider device 202 receives a firmware file from the web server 203 and transmits the firmware file to the user device 201. The web server 203 provides the service provider device 202 with the firmware file as requested by the service provider device 202.

Accordingly in FIG. 3, at operation 301, typically, a customer visits a web site that provides firmware download services by accessing the service provider device 202 using the user device 201 via the Internet 200. At operation 302, the customer visiting the web site, i.e. the user device 201 accessing the service provider device 202, finds information related to a product model for which the customer wishes to download firmware. After finding the related information, at operation 303, the customer requests download of a firmware file for upgrading the corresponding desired product model. In response to the customer's request, at operation 304, the firmware file to

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be downloaded is opened and is extracted from a compressed format, and then, at operation 305, download of the firmware file from the service provider device 202 into the user device 201 is started."

[Lines 4-27 of column 3]

4. The following “prior art” is again noted:

A) Applicant’s admitted “prior art”:

Under the heading “Background” on pages 1-2 of the instant specification applicant admits that it was known/conventional:

- 1) For electronic multimedia content to have been distributed on exchangeable recording media such as optical discs (i.e., DVDs);
- 2) For such recording media to have been played by playback devices (i.e., DVD players);
- 3) For such playback devices to have functioned based on “a lot of firmware” (i.e., software programs/data) stored therein; and
- 4) For the firmware of such playback devices to have been updated, using sold/distributed firmware update-CDs.

B) Japanese Patent Document #11-003219 to Fujioka (machine generated translation attached hereto):

Fujioka has been cited because it evidences a system in which the firmware of a DVD player (i.e., @ Figure 2) is updated via a DVD provided to the DVD players’ registered users/owners by the DVD players manufacturer [Note paragraphs 0001, 0016, 0017, and 0035 of the provided translation].

C) US Patent 5,710,674 to Takei:

Takei has been cited because it illustrates a system in which program data is recorded on a disc (i.e., Figure 1), along which A/V presentation information, to control the operation of a playback device (i.e., Figure 2).

D) US Patent Document #2004/0081433 to Stewart:

Stewart as been cited because it evidences that it was well known in the art to have added information representing special features/benefits to conventional DVDs (note Figure 1) in order to entice consumers to purchase a producer’s DVD, wherein the special features/befits include software updates for updating information recorded on the DVD. [e.g., Note claim 12 thereof].

E) US Patent Document #2003/0068162 to Tsai et al.:

Tsai et al. as been cited because it evidences a digital player (e.g., @ 100 of Figures 6-9) including:

- 1) A primary module (e.g., @ 101, 213, & Figure 8) for playing A/V information provided from a DVD; and
- 2) A secondary module (e.g., @ 102 & 212) for receiving software updates from said DVD.

[e.g., Note claims 10-17 thereof].

F) US Patent Document #2001/0044933 to Tagiri et al.:

Tagiri et al. has been cited because it evidences a system in which the firmware of an optical disc player is updated, as needed, by version-up data located in a version-up file located on an optical disc (i.e., note figure 2) [Note paragraphs 0005, 0018-0021, 0025, and claim 3 thereof].

G) US Patent Document #2004/0107356 to Shamoon et al.:

Shamoon et al. has been cited because it evidences that is was well-known in the media player art that firmware updates were "inherently" player device/type specific [See paragraphs 0622 and 0633].

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

6. Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted "prior art" and US Patent #7,227,824 to Kuroda in view of:

US Patent #7,162,554 to Cole et al; and

US Patent #6,976,252 to Meyerson.

A) Applicant's admitted "prior art":

1) As addressed above in part "A" of paragraph 4 of this Office action, the "Background" section of the instant specification (@ pages 1-2) described "prior art" on which the instant invention was based, and in doing so:

a) Defined the term "Firmware" as "Software" [note line 19 on page 1 of the instant specification];

b) Acknowledged that conventional DVD players contained a lot of such Firmware/Software which typically had to be updated several times during the lifespan of the DVD player [note lines 11-14, 17-18, and 23-28 on page 1 of the instant specification]; and

c) Acknowledged that it was known in the art to have provided the required firmware/software updated video a sold/distributed update-CD [note lines 7-10 on page 2 of the instant specification].

2) As addressed above in paragraph 1 of this Office action, the data structure now recited in independent claim 11 (i.e., "audio-visual presentation data [that] is stored in branches under the root directory having a playlist branch, a clip information branch and a stream branch") simply recites the structure of a conventional BD disc.

B) The showing of Kuroda:

As is illustrated in Figure 1, Kuroda discloses a "**removable prerecorded storage medium**" (@ 10), comprised of an DVD optical disc, that is to be read by the DVD playback device of Figure 1. As is shown/described with respect to Figure 2, the storage medium is formatted according to the conventional DVD standard to include:

1) "**Audio-visual presentation data**" (e.g., A/V data representing movie) which was to be played, in conventional DVD fashion, by the DVD playback device of Figure 1. [Note lines 55-62 of column 5]

Said storage medium was further formatted to contain embedded "**corrected playing program data**" (i.e., corrected/updated software) [Note lines 6-18 of column 6],

wherein said corrected program data was structured in a plurality of data portions each of which corresponded to a particular type (e.g., model) of DVD playback device [Note: Figure 5; and lines 55-68 of column 7].

C) Differences:

1) Claim 11 differs from applicants' admitted prior art in that:

A) The firmware updates were provided on CD as opposed to a conventional BD disc (i.e., one that includes conventional BD audio-visual presentation information);

B) The firmware updates did not comprise different portions directed to different types of players; and

C) The updating of the firmware was not performed immediately (i.e., that updating was performed at a point in time later than when the firmware was received).

2) Claim 11 differs from the showing of Kuroda in that:

A) Kuroda does not explicitly state that the "corrected playing program data" represents and/or comprises "firmware update data", and the updating of the firmware was not performed immediately (i.e., that updating was performed at a point in time later than when the firmware was received); and

B) Kuroda does not explicitly state that the updating feature can be applied to "Blu-ray" technology; and

3) Claim 11 further differs from both applicant's admitted prior art and Kuroda in that claim 11 recites that each of the update data files is provided under at least one "sub-branch" (e.g., a sub-directory) of a "root directory" wherein the "sub-branch" is named according to a specific device manufacturer (i.e., make).

D) Obviousness:

1) It would have been obvious to one of ordinary skill in the art to have modified the "prior art" described by applicant in accordance with the teachings of Kuroda:

A) So as to provide the firmware updates embedded within the presentation data of a conventional DVD; i.e., thereby advantageously avoiding the need for technically skilled persons (note lines 7-10 on page 2 of the instant specification); and

B) To have provided firmware updates in plural portions corresponding to different types of playback devices; i.e., thereby advantageously enabling a single DVD to provide all required updates.

2) **Alternatively**, it would have been obvious to one of ordinary skill in the art to have modified the system disclosed by Kuroda in accordance with the acknowledged prior art whereby the "corrected playing program data" was implemented using "firmware update data" as was evidenced by the admitted prior art as being known/needed/desired; i.e., and assuming that the recited "firmware" terminology requires more than the program correction/"patch" data explicitly described in Kuroda.

>With respect to either of these two alternatives:

A) As addressed above in paragraph 3 of this Office action, the examiner maintains that it was notoriously well known in the electronic device programming art, i.e., including the firmware update art, to have "indexed" available update/configuration programming data according to make/manufacture and model of the specific device to be updated. Cole et al has because it evidences that it was known to have provided such indexing via a convention "tree" structure [SEE Figure 7]. In light of this state-of-the-art, it would have been obvious to one skilled in the art to have implemented either of the alternatives set forth in this section such that the available updates of the recording medium are indexed via a "tree" structure according to make/manufacture and model; i.e., thereby simplifying the process of locating and accessing the required firmware update "file"¹ (i.e., motivation for the modification);

B) As evidenced by the showing of Meverson (e.g., note blocks 32, 42, and/or 46), the examiner maintains that it was well known in the computer art to have permitted the installation of non-critical firmware/software updates to be delayed until some future convenient time in order to minimize system interruptions. The examiner maintains that it would have been obvious to one skilled to have provided such an updating deferral feature in the above note alternatives, modified by Cole et al, to minimize interruptions as taught; and

C) As addressed in paragraph 1 of this Office action, the examiner maintains that it would have been obvious to have applied/extended the modified system to "Blu-ray" disc/player technology.

¹ The examiner notes that "file", by definition, simply refers to a collection of data/information.

7. Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted "prior art" and US Patent #7,227,824 to Kuroda in view of:

US Patent #7,162,554 to Cole et al; and

US Patent #6,976,252 to Meyerson

for the same reasons that were set forth above with respect to claim 11.
Additionally:

A) With respect to claim 14:

The examiner notes that the program data (i.e., firmware) stored on the storage medium is "only temporarily stored in the playback device" given that the BD is removed after playing and, alternatively, given that the firmware can/will, as admitted by applicant, itself be updated during the lifetime of the apparatus.

8. Claim 16 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted "prior art" and US Patent #7,227,824 to Kuroda in view of:

US Patent #7,162,554 to Cole et al; and

US Patent #6,976,252 to Meyerson

for the same reasons that were set forth above with respect to claim 11.
Additionally:

With respect to the steps recited in claim 16, see the steps of the program updating processing/method shown in Figures 3 and 4 of Kuroda. It is the examiner position that the modified system of the prior art would have operated accordingly.

9. Claims 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted "prior art" and US Patent #7,227,824 to Kuroda in view of:

US Patent #7,162,554 to Cole et al; and

US Patent #6,976,252 to Meyerson

for the same reasons that were set forth above with respect to claim 16.

10. Claim 20 is rejected under 35 U.S.C. 103(a) as being unpatentable over applicant's admitted "prior art" and US Patent #7,227,824 to Kuroda in view of:

US Patent #7,162,554 to Cole et al; and

US Patent #6,976,252 to Meyerson;

for the same reasons that were set forth above with respect to claim 16.
Additionally:

With respect to the structure recited in claim 20, see the structure for performing the program updating processing/method of Figures 3 and 4 in Kuroda as illustrated in Figure 1 of Kuroda. It is the examiner position that the modified system of the prior art would have been structured accordingly.

11. US Patent Document #2003/0202431 to Kim et al. has been cited for its showing of conventional DVD disc format [@ Figure 3]

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. HARVEY whose telephone number is (571) 272-7345. The examiner can normally be reached on M-F from 6:00AM to 3PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mr. Peter-Anthony Pappas, can be reached on (571) 272-7646. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/DAVID E HARVEY/
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